

A scenic view of a bridge over a river at sunset. The sky is a mix of orange, yellow, and blue. The bridge is a steel truss bridge with two tall towers. The water is calm, reflecting the sky and the bridge. In the background, there are mountains and a city skyline. A small boat is visible on the river in the foreground.

# Tribal Consultation

Portland Harbor Superfund Site

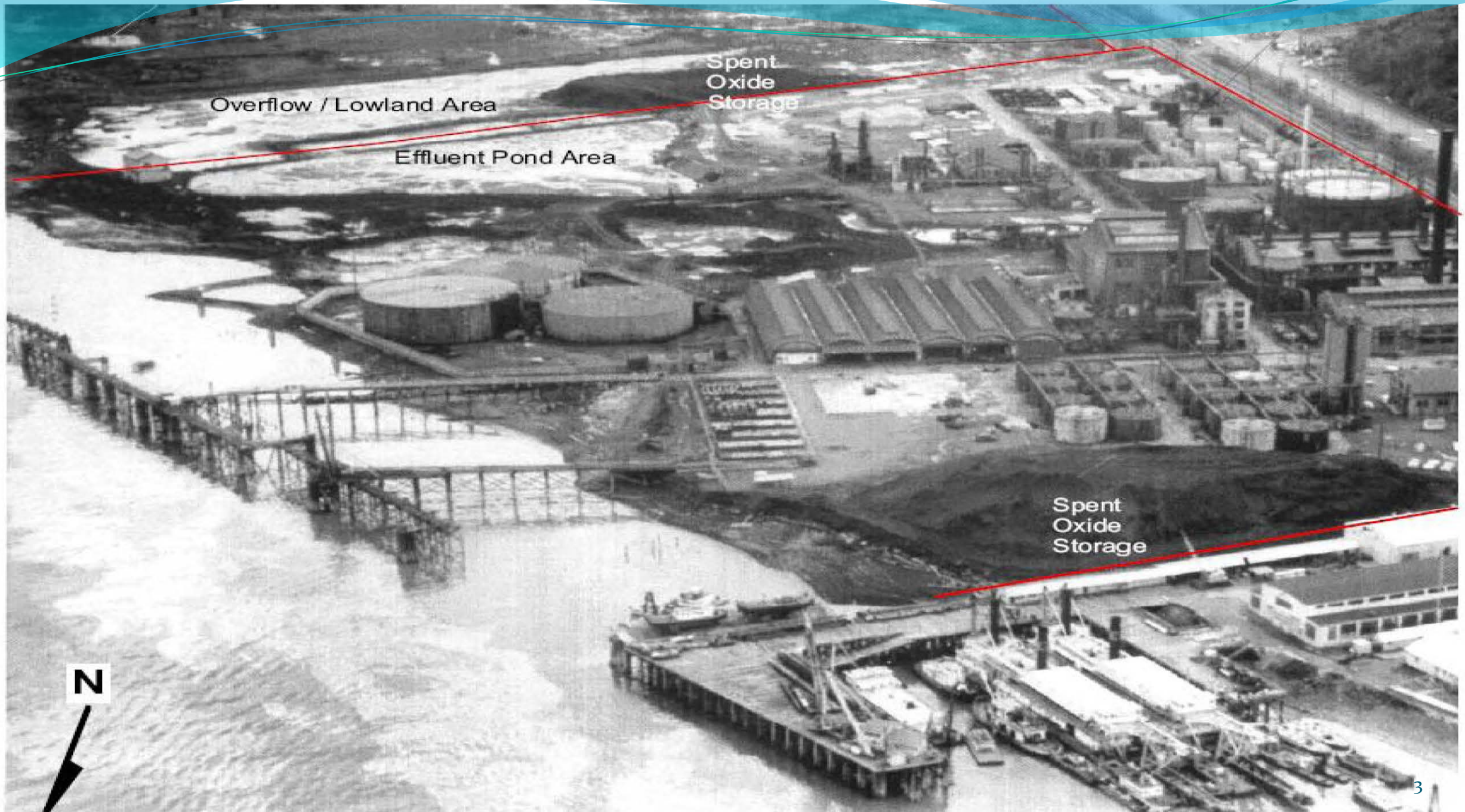




1921 | Guilds Lake Fill & Swan Island Before Airport



# Gasco MGP Site, mid 1950's

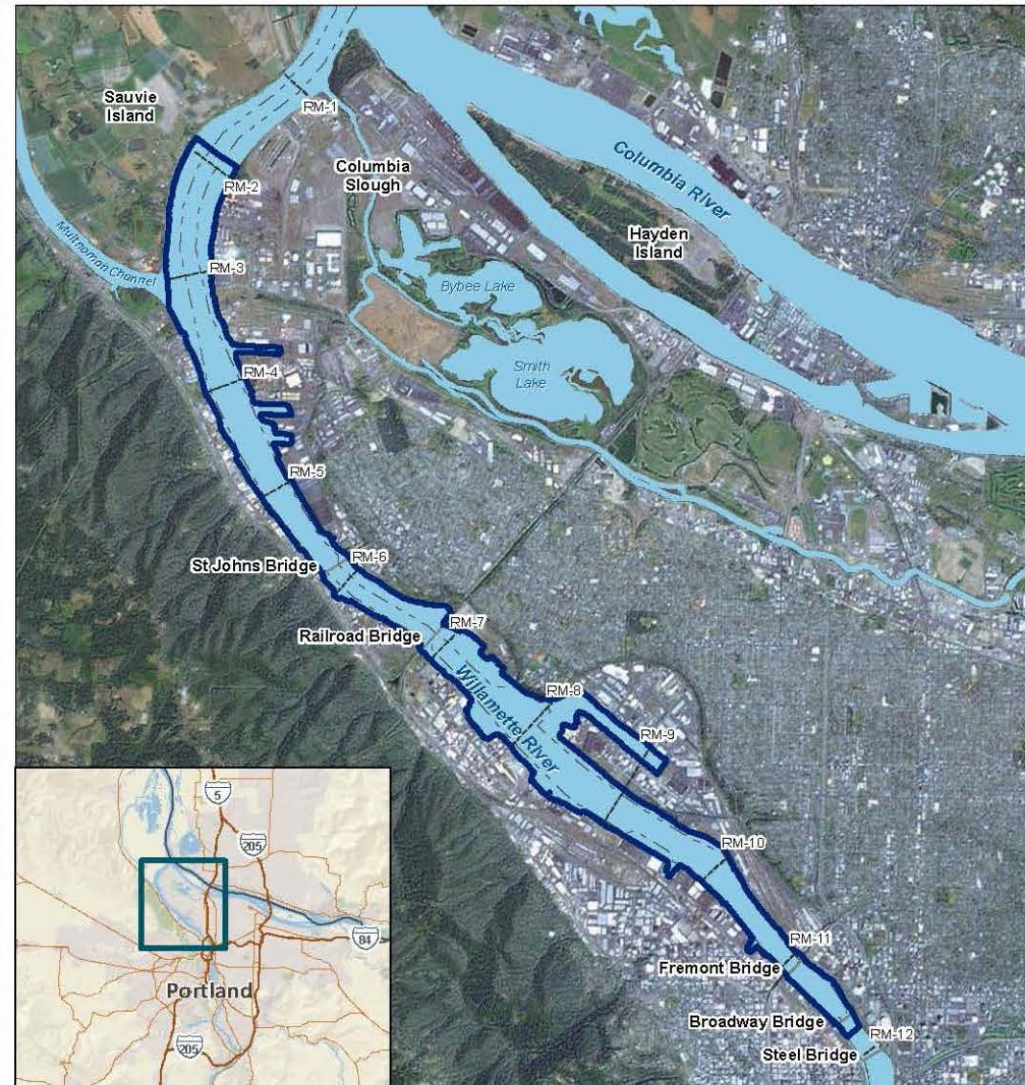








# Local Setting



Source: LWG

## **Tribes working with EPA**

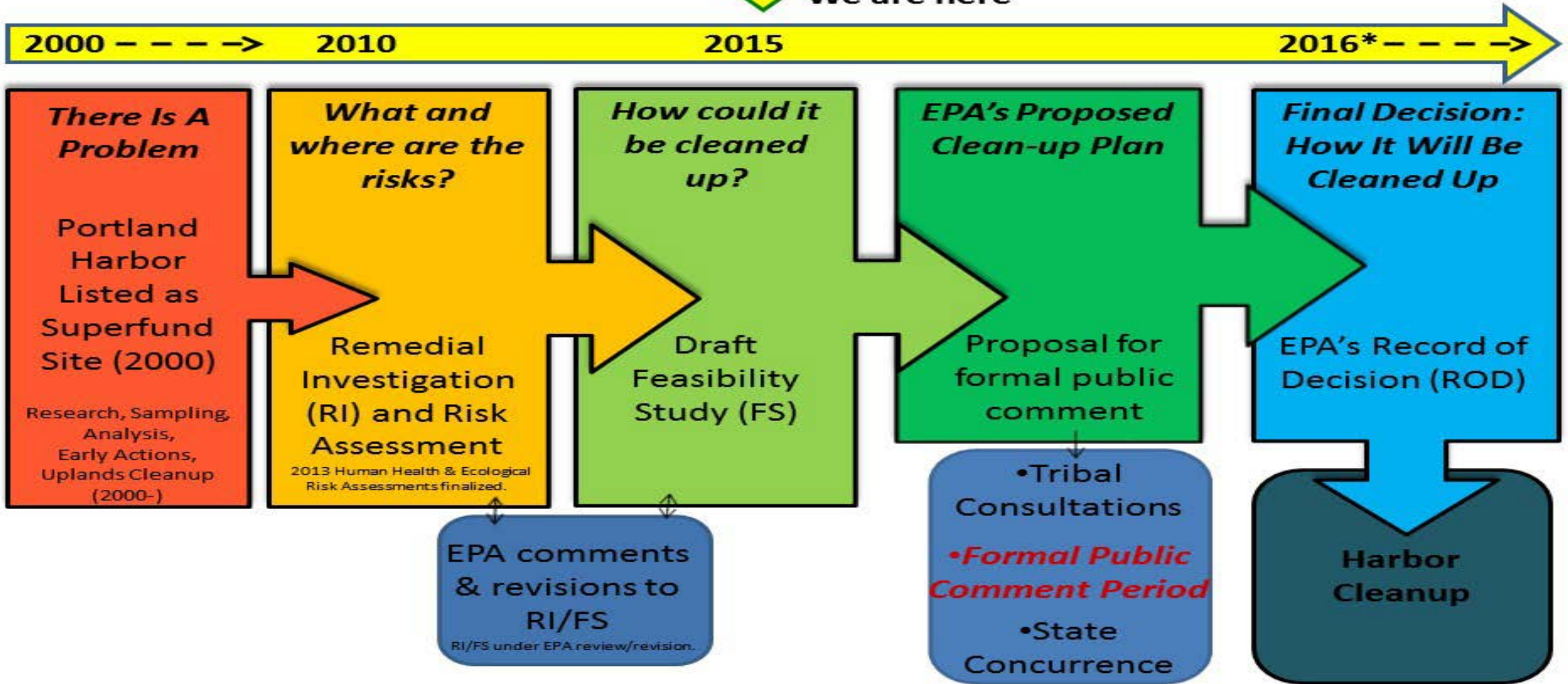
- **Tribes formally petitioned EPA to list the site.**
- **Tribes have provided oversight and input to the process**
- **EPA has been coordinating with 6 Tribes at staff and management levels and at these more formal Tribal consultations**



# Key Milestones

↓ We are here

\*Estimated date



**Tribal involvement at each of these steps**

# Contaminants of Concern in Sediment

PCBs

Dioxins/Furans

Total cPAH

Total PAH

Total LPAH

Total HPAH

TPHs

Arsenic

Cadmium

Chromium

Copper

Lead

Mercury

Zinc

BEHP

Tributyltin

Aldrin

Dieldrin

Total DDE

DDx

Lindane

Total Chlordanes

Hexachlorobenzene

Pentachlorophenol

PBDE



# Tribal Considerations for Risk Assessment

- The Tribes provided fish consumption rates for EPA risk analysis
- Fish living within the site are most contaminated and will benefit most from site cleanup
- EPA evaluated impacts to salmon and lamprey
- EPA considered Tribal and ceremonial uses of the river

# Objectives of the Cleanup

Reduce the contaminants in river sediments,  
riverbanks, and fish tissue

Protect people and wildlife from eating  
contaminated fish

Protect people and wildlife from contaminated water  
and reduce contaminated groundwater migration

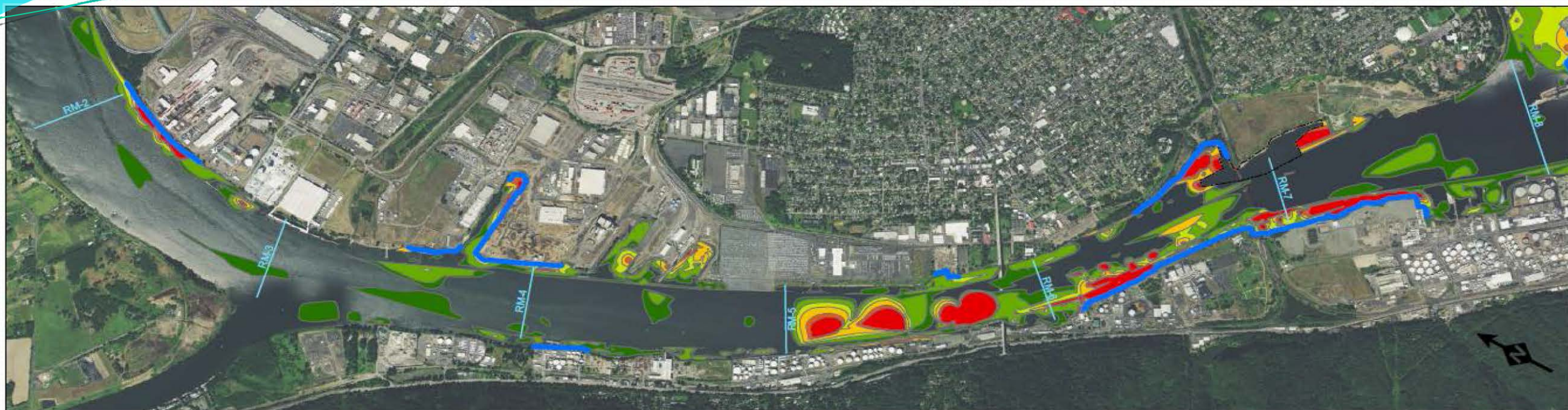


# Cleanup Approaches for Sediment Sites

- ❖ Removal/Dredging
- ❖ Capping
- ❖ Treatment
- ❖ Enhanced Monitored Natural Recovery
- ❖ Monitored Recovery



# Cleanup Alternatives



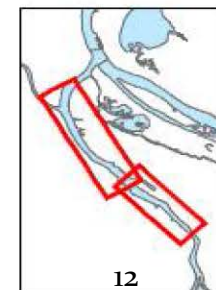
## Legend

Site with Known Contaminated Riverbank

## Alternative SMAs

- Alternative B
- Alternative C
- Alternative D
- Alternative E
- Alternative F
- Alternative G

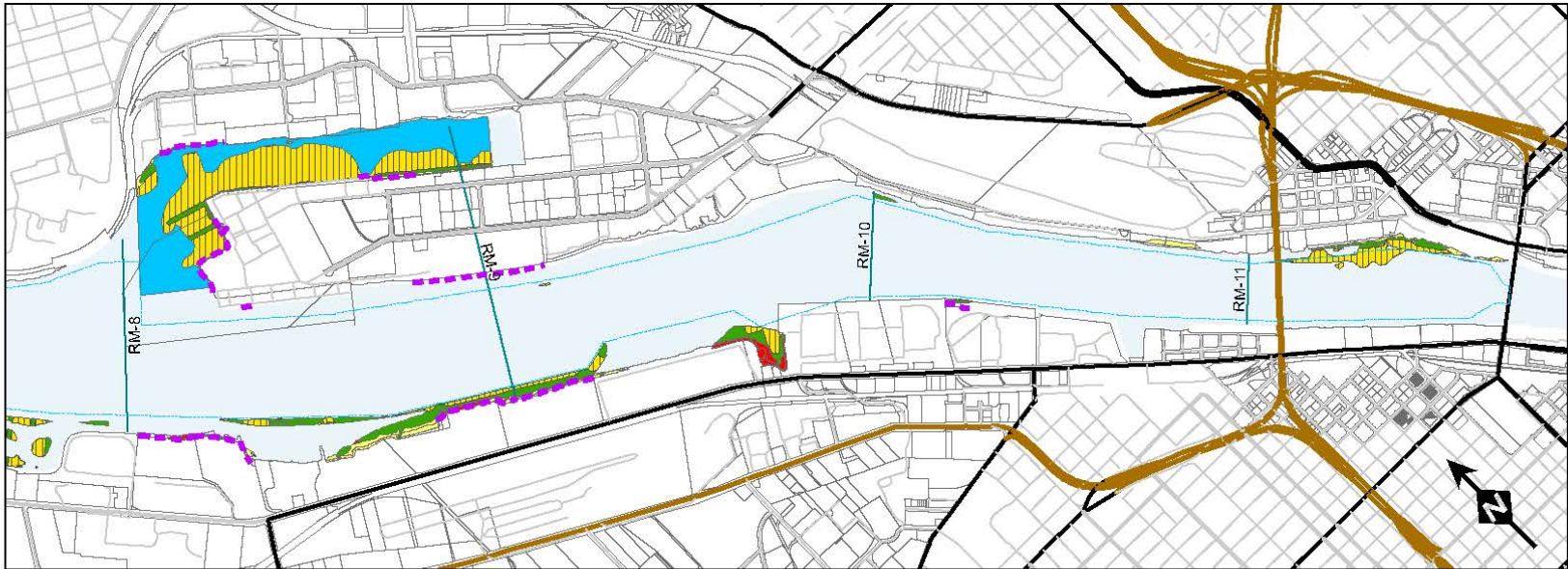
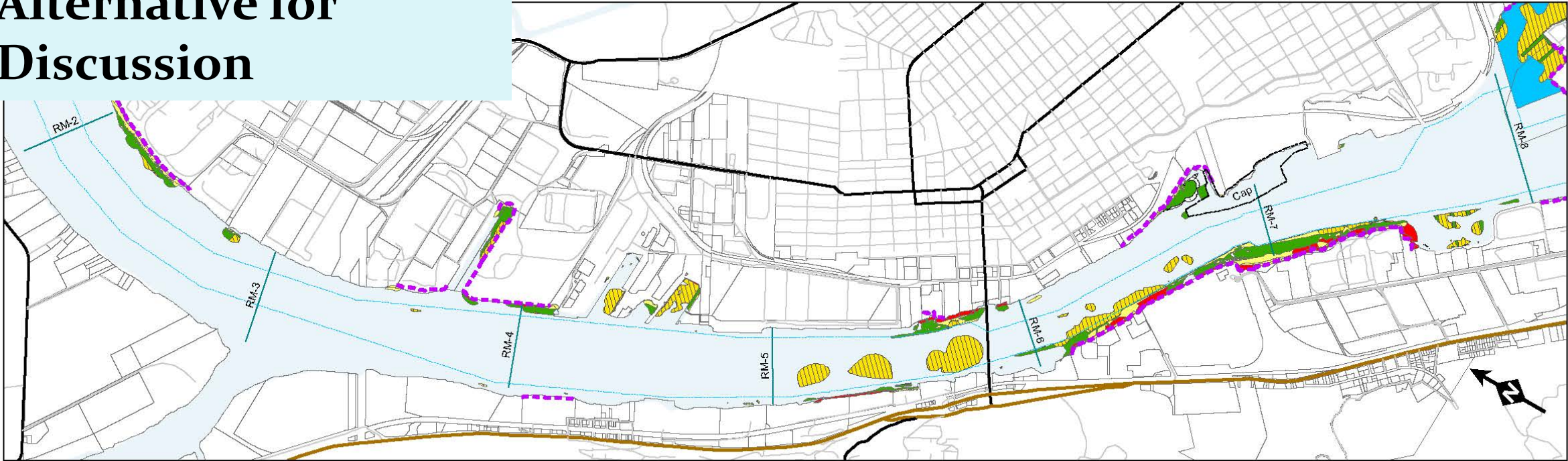
0 1,000 2,000 3,000 4,000  
Feet





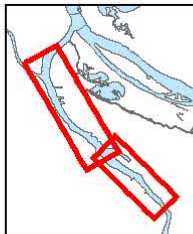
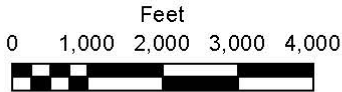
# Alternative for Discussion

C:\projects\Portland Harbor\GIS\MapDocuments\Workshop Figures\Fig11-X\_Tech-Assess-Site-wide.mxd, Created by: MLF



## Legend

- Navigation Channel
- EMNR
- In-situ Treatment
- Cap
- Dredge
- Dredge in Nav-FMD
- Dredge with Cap



# Immediate Benefits of this Cleanup

Active Cleanup

Monitoring

Goals Achieved

## End of Active Cleanup:

- ❖ Hot spots are removed or covered
- ❖ Wildlife is protected
- ❖ Use of caps is minimized
- ❖ People can safely contact river sediments
- ❖ People can safely eat more fish and shellfish



# After Cleanup Construction is Complete

- Monitoring of sediment, surface water and fish tissue to verify cleanup goals are achieved

# Projected Timeline

- Gather input to prepare Proposed Plan Jan/Feb 2016
- Educate community Jan/Feb/Mar 2016
- Proposed Plan Spring 2016
- 60 day public comment period Apr/May 2016



# Projected Timeline (continued)

- Record of Decision Dec 2016
- Negotiate with Potentially Responsible Parties 2017
- Sampling, Design, Active Cleanup 2017 and beyond